Pesqui Odontol Bras
v. 14, n. 4, p. 362-366, out./dez. 2000

Semiologia

Kaposi's sarcoma in Brazilian AIDS patients: a study of 144 cases

Sarcoma de Kaposi em pacientes com AIDS: estudo de 144 casos

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BIRMAN, E. G.; SILVEIRA, F. R. X.; GODOY, L. F.; COSTA, C. R. Kaposi's sarcoma in Brazilian AIDS patients: a study of 144 cases. **Pesqui Odontol Bras**, v. 14, n. 4, p. 362-366, out./dez. 2000.

One hundred and forty-four Brazilian AIDS patients presenting with Kaposi's sarcoma (KS) were evaluated with respect to the frequency of oral neoplasms and their clinical features. The majority of the patients were young male adults (age range: 21-40 years old), from which 11.1 % presented with oral KS (OKS) exclusively. Oral and skin lesions were associated in 25% of the cases, while only four patients showed association between oral and visceral KS; 49.3% of the cases were exclusively dermatological. The hard palate was the main site affected, followed by the oropharynx. The localization of KS was found to be similarly frequent in the tongue, gingiva and other sites of the oral mucosa. Candidosis was the prevailing fungal disease; in 20% of the cases it was restricted to the oral mucosa and in 80% it was systemic. No high frequency of paracoccidioidomicosis and cryptococcosis was detected. The prevailing bacterial disease was Tuberculosis and there was only one case of syphilis. Among the viral diseases, the most frequently detected was herpes simplex, followed by molusco contagiosum, condiloma acuminatum and cytomegaloviroses at lower frequencies. Pneumonia caused by *Pneumocystes carinii* and toxoplasmosis were also identified. The authors emphasise the importance of oral examination in HIV-infected patients bearing in mind several aspects related especially to KS, and stress the need for an interdisciplinary team in the management of these patients, in order to provide better quality of life as well as rapid diagnosis and treatment.

UNITERMS: Acquired immunodeficiency syndrome; HIV; Kaposi's sarcoma; Opportunistic infections.

INTRODUCTION

Among the major clinical features of the acquired immunodeficiency syndrome (AIDS), Kaposi's sarcoma (KS) is the most common neoplastic disease. The activity and progression of lesions are associated with the overall health of the patient. The progression of KS is more common after opportunistic infections or prolonged steroid treatment, with a reported frequency of around 15% to 20% among AIDS patients[2,8,20]. Worth noting, epidemiologic evidence has suggested that all forms of KS have an infectious aetiology and, most importantly, that the frequency of KS in HIV disease is strikingly higher in homosexual or bisexual males than in patients with haemophilia, transfusion recipients or injection drug users[17].

The oral environment can be the first to be involved, as observed in up to 60% of the patients, with subsequent progress to multiple sites[9]. Clinically, AIDS-KS presents multicentric and symmetrical lesions. The main affected oral sites referred in the literature are the palate and gingiva. An oropharyngeal involvement is uncommon and it may constitute the first manifestation of AIDS, although it may develop during the course of the disease[7,14]. The clinical characteristics of oral Kaposi's sarcoma (OKS) are red, purple or bluish patches or nodules (macular or paponodular forms) but discolored lesions may also be observed[4,8,14]. OKS is most frequently found in oral sites of attached keratinized mucosa; the palate is the most common, followed by attached gingiva and dorsal tongue. It can also be found in other mucosae, including the nonkeratinized, mainly in the advanced stages of OKS. The interaction between KS and HIV infection is still controversial and not well established, but there is a clear relationship between the immunodeficiency state and this neoplasm. The dentist and the oral physician are therefore in position to give the first diagnosis of AIDS.

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It is suggested that oral mucosal lesions of KS are more associated with lower CD4 count than with skin lesion alone[15].

Having in mind the importance of the early diagnosis, development of this oral tumor and management approaches to these aspects, we studied 144 AIDS patients presenting with OKS and evaluated the frequency of neoplasms, their clinical features and associated infectious disorders, in order to give a picture of the other conditions present in these patients.

CASUISTICS AND METHODOLOGY

Our casuistics comprises a group of 144 AIDS patients presenting with KS (143 men and one woman), from which 78 were homosexuals (54.1%), 35 bisexuals (24.3%), 22 heterosexuals (15.2%), 7 drug addicts (4.8%), 1 transfusion recipient (0.7%) and 1 undetermined case (0.7%) (Table 1). Association between drug addiction and homosexuality was observed in five patients (3.4%).

Most of the patients were young – the majority of them ranged from 21 to 40 years old (mean age: 29 years).

The patients were selected at the AIDS Reference Center, Health and Welfare Department, state of São Paulo, Brazil. The oral examination was conducted by an oral physician, and previous medical records were requested in order to perform a thorough evaluation of the present medical conditions. All the patients presented with biopsy-proved KS and had well documented reports on other medical problems and general health status.

In the oral examination, all lesions suspected of being neoplasms were biopsied and appropriate tests for possible related infections were carried out in the laboratory.

TABLE 1 - Risk behaviour of 144 Brazilian HIV-infected patients.

Behaviour	Number of patients	%
Homosexuality	78	54.16
Bisexuality	35	24.30
Heterosexuality	22	15.27
Drug addiction	7	4.87
Transfusion	1	0.70
Undetermined	1	0.70
Total	144	100.0

TABLE 2 - General distribution of KS lesions.

Localization	Number
Exclusively on skin	71/144
Exclusively in the mouth	16/144
Skin and mouth	36/144
Mouth and other (visceral and lymphatic)	4/144
Skin and sites other than mouth	17/144

RESULTS

From all the patients evaluated, 16/144 (11.1%) presented with isolated OKS in the examination, while 36/144 (25%) showed association between oral and skin lesions. Exclusively dermatological lesions were found in 71/144 (49.3%) of the patients and association between mouth and visceral localization was observed in four patients (Table 2). One hundred and thirty-two patients (91.7%) had localized lesions. Disseminated KS was observed in only 12 individuals (8.3%).

The major site of OKS was the hard palate (26/56 patients; 46.4%) followed by the oropharynx (21/56 patients; 37.5%); involvement of the tongue, gingiva and oral mucosa was observed in only a few cases (Table 3). The clinical features of the oral lesions included plaques or pigmentation – macula (75%) –, nodules (14.3%) and also proliferative lesions such as tumors (10.7%) (Table 4).

TABLE 3 - Distribution of KS oral lesions.

Oral sites	Number
Hard palate	26/56
Oropharynx	21/56
Orally disseminated	5/56
Gingiva (exclusively)	2/56
Tongue (exclusively)	2/56
Total	56/56

TABLE 4 - Major clinical aspect of the oral lesions.

Aspect of the lesion	Number
Macular	42/56
Nodular	8/56
Tumoral	6/56
Total	56/56

Candidosis was detected in the oral mucosa of 17.5% (20/114) of the patients, although in 80 cases other areas were affected. Herpes simplex was observed in 15 patients and, out of these, 6 (4.2%) manifested it exclusively in the mouth. Tuberculosis affected 24 patients, with five cases related to the lungs. Condiloma acuminatum, molusco contagiosum and cryptococcosis were diagnosed in only one patient each. Paracoccidioidomicosis and toxoplasmosis were detected in 12 patients, mostly in the brain. Pneumonia caused by *Pneumocystes carinii* was diagnosed in 12 patients while cytomegalovirus infection was found in 6 and syphilis in only 1 (Table 5).

DISCUSSION AND CONCLUSION

In view of the poor regional data available, our study focused on the frequency of KS (mainly OKS) in AIDS patients, in an attempt to gather subsidiary systematised information to compare with the data from other regions and countries and with that from the time when the majority of AIDS patients were homosexual men – a situation that differs from nowadays, even though the prevalence of this disease is still high among them. The need for this type of information in this group is stressed by GILLESPIE, MARIÑO[10] (1993), since the natural history of this tumor is very well established only in HIV negative individuals[9]. Together with candidosis, KS may be an important manifestation of AIDS and our data is in accordance with that of KALDOR *et al.*[11](1993), REICHART *et al.*[19] (1993) and WANG *et al.*[21] (1995) with respect to sexual behaviour (higher prevalence in homosexuals and bisexuals). Similarly to that of other studies[1,3,5], our results point to KS as the most frequent neoplasm, with high prevalence on the palate, as also reported by LITTLE[12] (1983); LOZADA *et al.*[13] (1983) and EPSTEIN; SCULLY[5] (1991). Concerning the OKS gingival involvement, we have to remember that some loss of alveolar bone may have occurred.

TABLE 5 - Infectious diseases found in 144 Brazilian AIDS patients presenting with Kaposi's sarcoma.

Infectious disease	Localization	Number
Candidosis	oral mucosa	20
Candidosis	oral mucosa and other areas	80
Paracoccidioidomicosis	brain	12
Cryptococcosis	brain	5
Tuberculosis	lungs	5
Tuberculosis	other organs	19
Syphilis	genital	1
Herpes simplex	mouth	6
Herpes simplex	other areas	9
Molusco contagiosum	skin	5
Condiloma acuminatum	genital	5
Cytomegaloviroses	mouth	6
Pneumonia (*P. carinii*)	lungs	12
Toxoplasmosis	brain/other	12

It is important to discuss the differential diagnosis of these lesions, because some of them appear as flat or macular lesions and may be interpreted mainly as erythematous candidiasis or even erythroplakia. Amalgam tattoo and ecchymosis are also included in some cases. Raised OKS can present similarities to pyogenic granuloma, hematoma, vascular lesion and bacillary angiomatosis as well as to other tumors of minor salivary glands, lymphoma, or even melanoma. KS can mimic a carcinoma since in many cases it does not present the characteristic pigmentation, developing as plaques, nodules or masses associated with ulcerations. Its frequency among young people differs from that in older people. Oral sites may be the only ones affected in more than ¼ of the patients, even when the oral lesions have become symptomatic[7].

New local therapies in addition to surgical management, intralesional or regional therapy are being used to treat OKS. In our daily experience, intralesional therapy is more employed than the systemic treatment.

Oral candidosis was the most frequent infectious disease, a finding that is in accordance with that of FICARRA *et al.*[8] (1988), EPSTEIN; SCULLY[5] (1991); RAMIREZ-AMADOR *et al.* [18] (1993) and CEBALOS-SALOBRENA *et al.*[3] (1996).

It should be mentioned that the majority of patients with AIDS-KS die from opportunistic infections rather than from KS[22]. We must bear in mind that it is important to give an overall attention to these patients, looking for systemic manifestations and never overlooking oral manifestations. The new drugs utilised in the treatment of AIDS today are changing many characteristics in these patients. It could be said that the oral manifestations of HIV are in the era of protease inhibitor therapy and KS appears to be in decline[16]. We hope that, in the near future, the oral manifestations will respond better to all these new drugs, making possible the resolution of lesions related to oral or systemic KS in the HIV group.

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BIRMAN, E. G.; SILVEIRA, F. R. X.; GODOY, L. F.; COSTA, C. R. Sarcoma de Kaposi em pacientes com AIDS: estudo de 144 casos. **Pesqui Odontol Bras**, v. 14, n. 4, p. 362-366, out./dez. 2000.

Foram estudados pacientes brasileiros portadores de SIDA apresentando sarcoma de Kaposi (SK). O perfil de idade mostrou um grupo com média de idade entre 21 e 40 anos, sendo que 11,1% da amostra apresentava SK exclusivamente na cavidade bucal, observando-se em 25% da amostra uma associação de lesões bucais e na pele. Somente quatro pacientes apresentaram associação de lesões bucais e viscerais, enquanto 49,3% eram portadores de lesões exclusivamente em pele. O palato duro foi a região intrabucal mais afetada, seguida de orofaringe, língua, gengiva entre outras localizações menos freqüentes. Doença fúngica, principalmente candidíase, foi observada exclusivamente na cavidade bucal. Paracoccidioidomicose e criptococose estavam presentes em menor escala. Doenças bacterianas foram representadas quase exclusivamente pela tuberculose, com apenas um caso de sífilis. Entre as doenças virais, herpes simples recidivante foi a mais encontrada, seguida de casos de molusco contagioso, condiloma acuminado e citomegaloviroses, em menor escala. Em relação às doenças causadas por protozoários foram identificados pneumonia por *Pneumocystes carinii* e toxoplasmose. É enfatizada pelos autores a necessidade de um exame bucal acurado nos portadores de SIDA, tendo em vista os vários aspectos clínicos, principalmente relacionados ao SK. Há uma necessidade de constante atuação interdisciplinar, com vistas não só à obtenção de maior qualidade de vida para esses pacientes bem como para maior rapidez no diagnóstico e tratamento.

UNITERMOS: Síndrome de imunodeficiência adquirida; HIV; Sarcoma de Kaposi; Infecções oportunistas.

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Recebido para publicação em 07/06/00
Enviado para reformulação em 10/09/00
Aceito para publicação em 15/10/00